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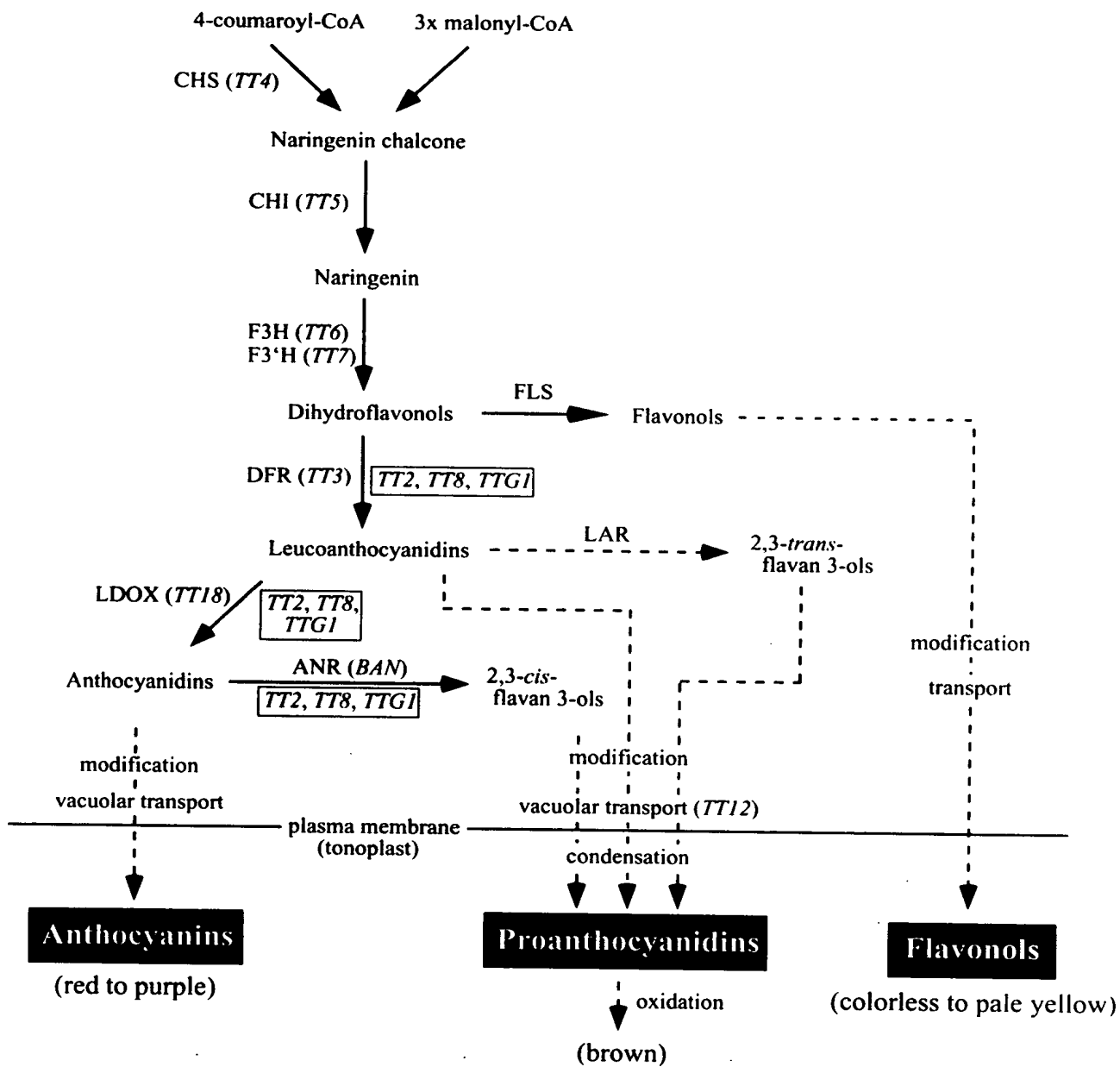
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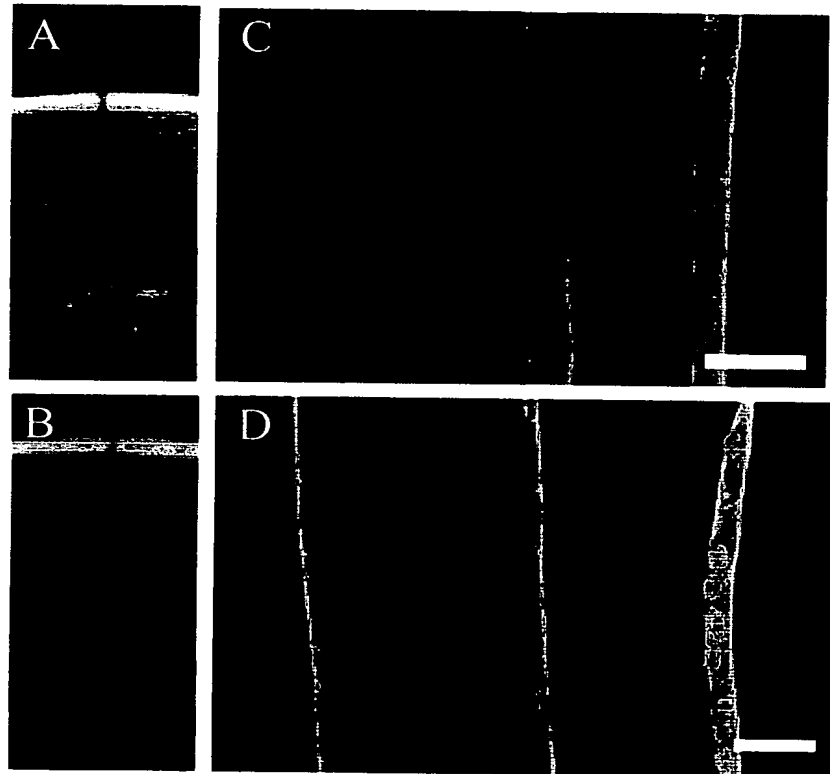
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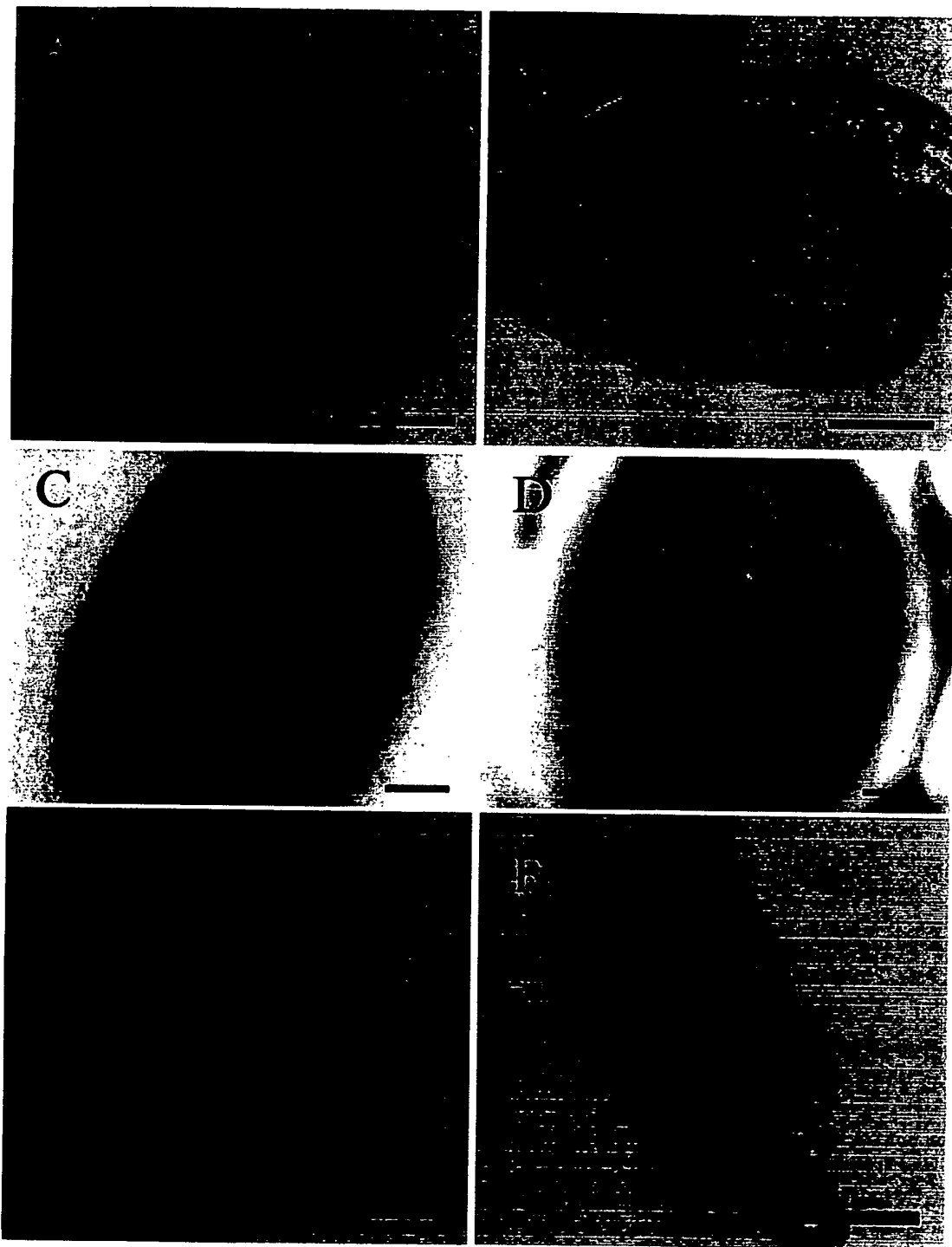
**Fig. 1**



***Fig. 2***

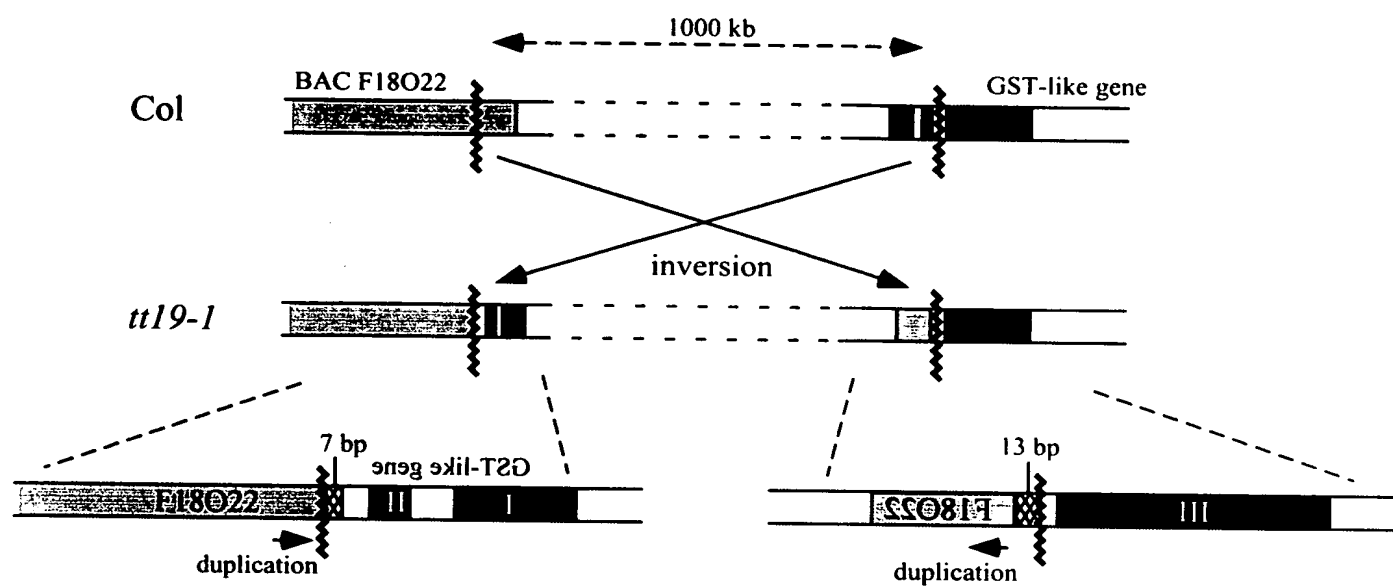


***Fig. 3***

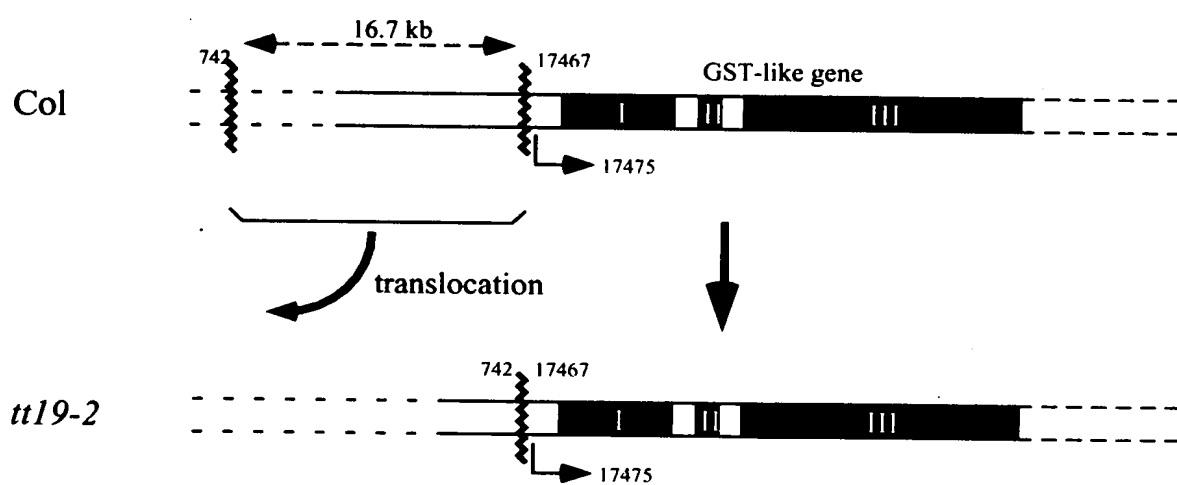


*Fig. 4*

A



B



**Fig. 5**

A

At-TT19 ---MVVKLYGQVTAACQORVLLCFLEKIEFEI I H I D L D T F E Q K K P E H L L R O P - F G Q V P A  
 At-H36860 ---MVVKVYGOI KAANPORVLLCFLEKDI E F E V I H V D L D K L E Q K K P Q H L L R O P - F G Q V P A  
 Ph-AN9 ---MVVKVGSAMAACQORVIMVCL I E L G V D F E L I H V D L D S L E Q K K P F L V L Q P - F G Q V P V  
 Nt-parB ---MAI KVHGSPMSTATIRVAACL I E K E L D F E F V P V D M A S G E H K K P Y L S L N P - F G Q V P A  
 Zm-GSTIII ---MAPLKLYGMPLSPNVRVATVLEKGLDFE I V P V D L T T G A H K Q P D F L A L N P - F G Q I P A  
 Zm-GSTI ---MAPMKLYGAVMSWNLTRCATALEEAGSDYE I V P I N F A T A E H K S P E H L V R N P - F G Q V P A  
 Zm-GSTIV ---MAPPAVKVYGWAI SPFVSRALLALEEAGDYELVPMSROGDHRRPEHLARNP - F G K V P V  
 Ta-GSTA1 ---MSPVKVFGHPMLTNVARVLLFLEEVEGAEYELVPMDFAVENKRRPQHVQLNP - F A K M P G  
 Zm-BZ2 ---MRVLGGEVSPFTARARLALDLRGVAYELL---DEPLGPKKSDRLAANPVYGI PV

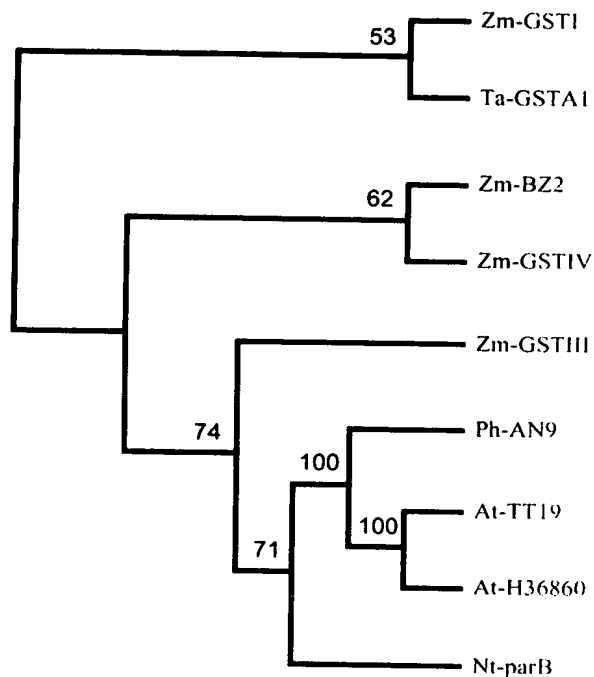
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 At-H36860 IEDGY-LKL FESRAIARYATKYADO-----GTDLLGKTL--EGRAIVDQWVEVENNYFY  
 Ph-AN9 IEDGD-FRL FESRAI IRYAAKYEVK-----GSKLTGTTL--EEKALVDQWLEVESNNYN  
 Nt-parB IEDGD-LKL FESRAI TOYIAHYADN-----GYQLIQQP--KKMPSMSVMEVEGQKFE  
 Zm-GSTIII LVDGD-EVL FESRAI NRYIASKYASE-----GTDLLPATA--S-AAKLEVMLEVESHHFH  
 Zm-GSTI LQDGD-LYL FESRAI CKYAARKNK-----PELLREGN--LEEAMVDVWIEVEANQYT  
 Zm-GSTIV LQDGD-LTL FESRAI ARHVLKHK-----PELLGGGR--LEQTAMVDVWIEVEAHQLS  
 Ta-GSTA1 FQDGD-LVL FESRAI AKYILRKYGGTA---GLDLLGENSGIEELAMVDVWIEVEAQYY  
 Zm-BZ2 LLLPDGRAICESAVIVQYIEDVARESGAEAGSLLPDDP---YERAMHFWTAFIDDKFW

At-TT19 VLAQPLVINLI I K P R L G ---EKCQVVLVEDLKVKLGVLDIYNNRLSSNRFLAG-EEFT  
 At-H36860 AVALLPLVMVVFVKPKSG---KPCQVALVEELKVKFDKVLVYENRLATNRYLGG-DEFT  
 Ph-AN9 DLVYNNVLQLLVFPKMG---QTSDLTLVTKCANKLENVFDIYEQLSKSKYLAG-EFFS  
 Nt-parB PPATKLTWELGKPI I G ---MTTDDAAVKESEAQLSKVLDIYETQLAESKYLAG-DSFT  
 Zm-GSTIII PNASPLVFQLLVRLPG---GAPDAAVVEKHAEQLAKVLDVYEAHLARNKYLAG-DEFT  
 Zm-GSTI AALNPILFQVLI SPMLG---GTTDQKVVDENLEKLVVLEVEARLTCKYLAG-DFLS  
 Zm-GSTIV PAIAIIVVECVFAPFLG---RERNQAVVDENVEKLVVLEVEARLATCTYLAG-DFLS  
 Ta-GSTA1 PAISPVVFECI I I PFIIPGGGAAPNQTVVDESLERLRGVLGIYEARLEKSRVLAG-DSIT  
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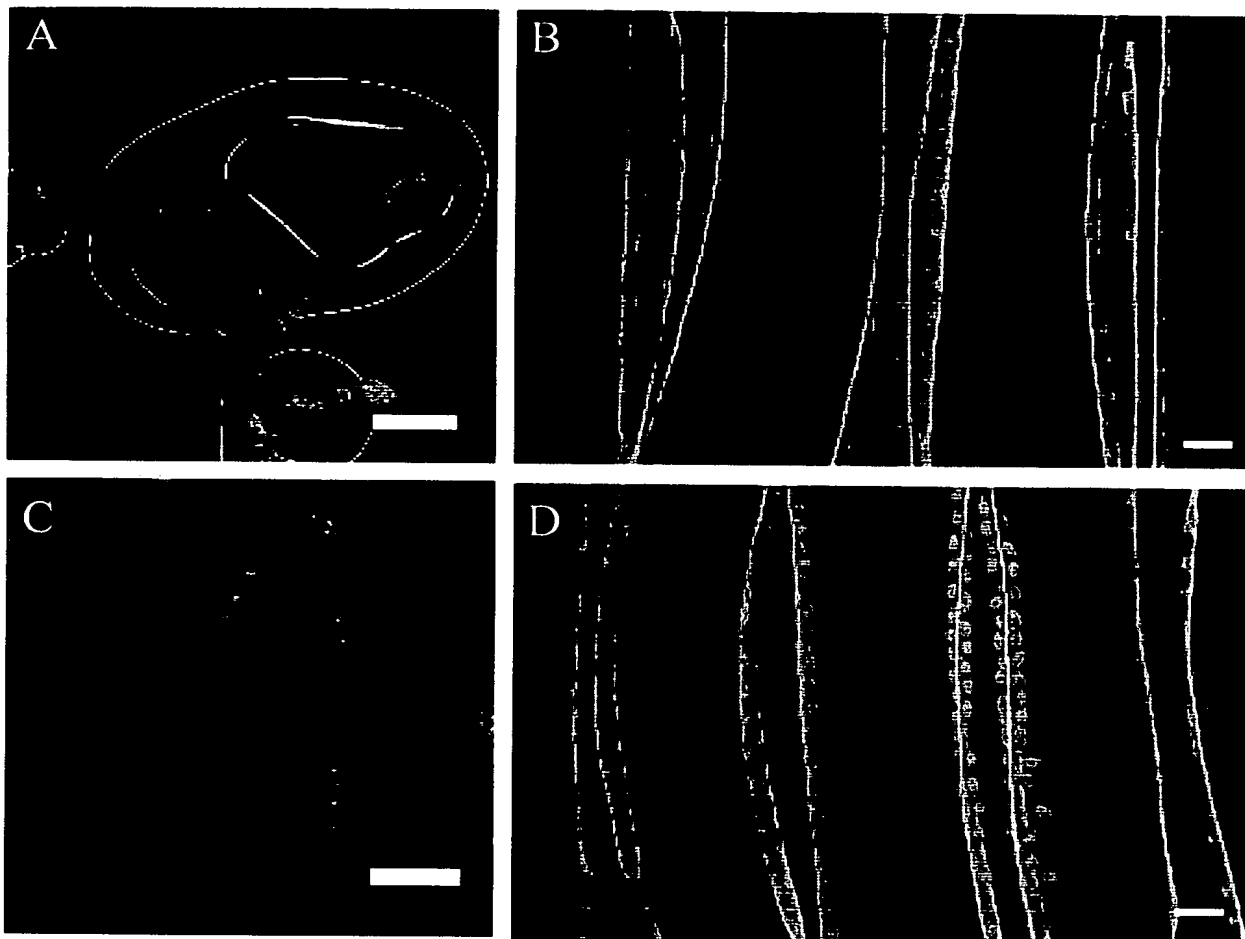
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 Ph-AN9 -LADLSHLPRLFLMNEGGFS--HLVTK--RKCLHEWYLDISSRDSWKKVLDLMMKKISE  
 Nt-parB -LVDLHHIPNIYYLMS-SKVK--EVFDS--RPRVSAWCADILARPAMVKGLEKLOK----  
 Zm-GSTIII -LADANHALLPALTSARPPRP--GCVAA--RPHVKAWEAIAARPAFKTVAAIPLPPP  
 Zm-GSTI -LADLNHVSVTLCIFA-TPYA--SVLDA--YPHVKAWWWGLMERPSVKVAALMKPSA--  
 Zm-GSTIV -LADLSPTIIMHCLMA-TEYA--ALVHA--LPHVSAWWWGLAARPAANKVAQFMVPGAGA  
 Ta-GSTA1 -FADLNHIIPTTFYFMT-TPYA--KVFD--YPKVKAWWWGLMARPAVQVCKHMPTEFKL  
 Zm-BZ2 GLLDLALGCFPLALRACERLHGLSLIDASATPLLDGWSQRFAAHPAAKRVLPDTEKVQF

At-TT19 -----  
 At-H36860 -----  
 Ph-AN9 IEAVSI PAKEEAKV-----  
 Nt-parB -----  
 Zm-GSTIII SSSA-----  
 Zm-GSTI -----  
 Zm-GSTIV PKEQE-----  
 Ta-GSTA1 GAQY-----  
 Zm-BZ2 TRFLQVQAQFRVHVS

B

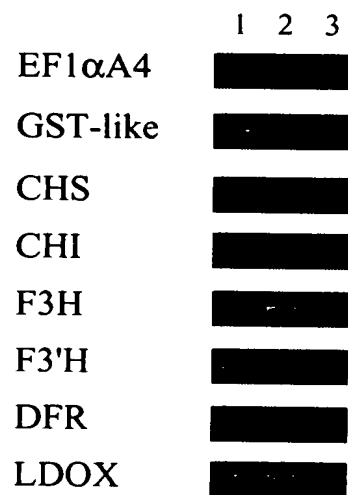


**Fig. 6**

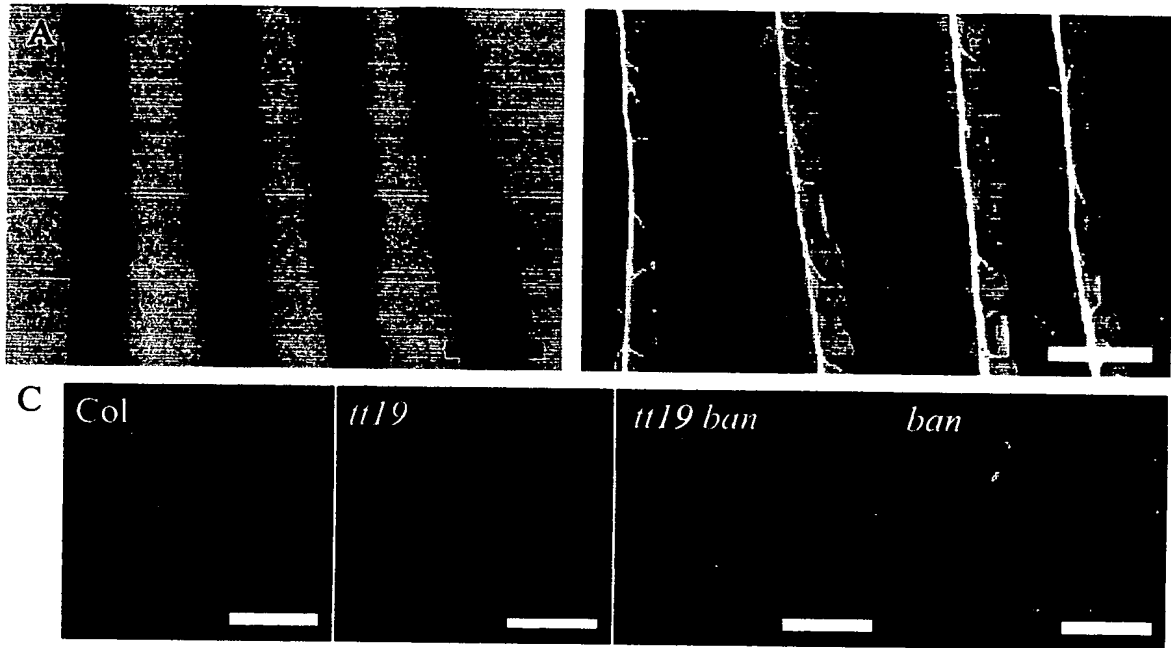


**Fig. 7**

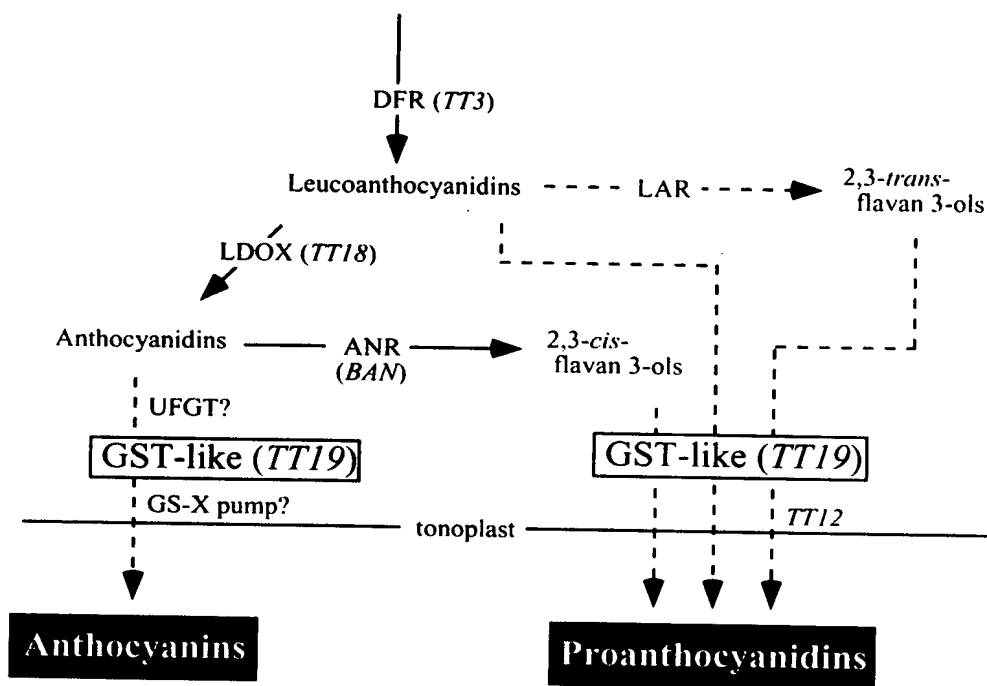




***Fig. 8***



**Fig. 9**



**Fig. 10**